1324

PREFLIGHT INSPECTION

ARTICLE NO. 192 DATE 12 Nov 56

| NOSE SECTION: | MECH. | INSP. |
|---|---|---|
| 1. Plastic nose & windows free of cracks & secure. | [illegible] | |
| 2. ARN/6 boot for condition & closed, ARN/6 and compass secure. | [illegible] | |
| 3. Brake fluid for proper level & cap secure. | [illegible] | |
| 4. Cabin pressure test fitting secure. | [illegible] | |
| 5. Pitot clean & secure, check AIRSPEED. | [illegible] | |
| 6. Nose section clean & OK to close panel. | [illegible] | |
| 7. Access panel installed. | [illegible] | |
| 8. All items cleared. CREW CHIEF: | [illegible] | |
| COCKPIT EXTERNAL: | | |
| 1. Static holes all open. | [illegible] | |
| 2. Canopy external handle secure. | [illegible] | |
| 3. Lower antenna secure. | [illegible] | |
| 4. Windshield & canopy glass cleanliness & condition. | [illegible] | |
| 5. All items cleared. CREW CHIEF: | [illegible] | |
| COCKPIT INTERNAL: | | |
| 1. Canopy antenna connection secure. | NR | |
| 2. Canopy emergency release handle locked & safetied (020 copper wire). | [illegible] | |
| 3. Canopy for proper latching with aft hatch installed. | [illegible] | |
| 4. Canopy seal & connection for condition. | [illegible] | |
| 5. Brakes for solid feel. | [illegible] | |
| 6. Rudder pedals for freedom & operation of adjustment. | [illegible] | |
| 7. Elevator for operation & freedom. | [illegible] | |
| 8. Aileron for operation & freedom. | [illegible] | |
| 9. Elevator tab for operation & direction. Set to neutral. | [illegible] | |
| 10. Aileron tab for operation & direction. Set to neutral. | [illegible] | |

| COCKPIT INTERNAL: (Continued) | MECH. | INSP. |
|---|---|---|
| 11. Throttle for operation & friction lock. | | |
| 12. U.H.F. | | |
| 13. ~~Alcohol~~ & rag in map case. | | |
| 14. Instruments for condition & cleanliness. | | |
| 15. Autopilot: | | |
| a. Power on. | | |
| b. Inverter on. | | |
| c. After 3 minutes turn autopilot on. (Stick should not move fore or aft.) | | |
| d. Check roll trim knob for operation. Wheel should move approximately the same distance each direction. | | |
| e. Check yaw trim knob for operation. | | |
| f. Check pitch trim knob for operation. | | |
| g. Check turn knob for operation. | | |
| h. Overpower autopilot in all three axes. (Stick and rudder pedals should return smoothly to initial position) | | |
| i. Center yaw and roll trim knobs. | | |
| j. Inverter off. | | |
| k. Power off. | | |
| 16. Circuit breakers set or into white line. | | |
| 17. Seat belt & shoulder straps for condition & operation. | | |
| 18. Oxygen system checked out, system pressure 1800-~~2000~~# cap installed, check out face heat. | | |
| 19. Warning lights for operation. | | |
| 20. Emergency battery for operation, check voltage with precision meter. | | |
| 21. Seat for condition & operation. | | |
| 22. Interior lights for operation & security. | | |
| 23. Cockpit floor cleaned. | | |
| 24. All items cleared. CREW CHIEF: | | |

| EQUIPMENT BAY: | MECH. | INSP. |
|---|---|---|
| 1. Peacan drained, flushed & valve closed. | KFB | |
| 2. Cockpit regulators for cleanliness & condition. | KFB | |
| 3. Control cables for freedom, operation & turnbarrels safeties. | KFB | |
| 4. Equipment for security in hatch & bay. | MEM | |
| 5. Lower hatch & seal for operation & condition of latching mechanism. | MEM | |
| 6. OK to install lower hatch. | MEM | |
| 7. Lower hatch installed, latched and safetied. | LCM | |
| 8. Check HF radio equipment for security. | NA | |
| 9. Upper hatch latching mechanism for operations. | KFB | |
| 10. Pressure regulator safetied in flight position. | KFB | |
| 11. OK to install upper hatch. | MEM | |
| 12. Upper hatch installed, latched & safetied. | MEM | |
| 13. All items cleared. CREW CHIEF: | LCM | |
| UPPER CROTCH BAY: | | |
| 1. Heat exchanger duct connections for security. | KFB | |
| 2. Check for plumbing or anything riding structure. | KFB | |
| 3. OK to close access door. | KFB | |
| 4. Access door closed & secure. | KFB | |
| 5. All items cleared. CHREW CHIEF: | LCM | |
| ENGINE AIR DUCTS: | | |
| 1. R/H & L/H main ducts for cracks & cleanliness. | KFB | |
| 2. R/H oil cooler duct for cracks & cleanliness. | KFB | |
| 3. Check inlet guide vanes, compressor rotor & stator blades for dents, nicks or other evidence that the engine has ingested foreign material. | KFB | |
| 4. Run up screens removed. | MEM | |
| 5. All items cleared. CREW CHIEF: | LCM | |

| | MECH. | INSP. |
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| **WING:** | | |
| 1. R/H wing for condition & cover plates secured. | | |
| 2. R/H aileron & tab for security & condition. | | |
| 3. R/H flap for security & condition. | | |
| 4. R/H fuel caps secured. | | |
| 5. R/H wing fillets for conditions & security. | | |
| 6. R/H pogo installed & latched. | | |
| 7. L/H wing for condition & cover plates secured. | | |
| 8. L/H aileron & tab for security & condition. | | |
| 9. L/H flap for security & condition. | | |
| 10. L/H fuel caps secured. | | |
| 11. L/H wing fillets for condition & security. | | |
| 12. L/H pogo installed & latched. | | |
| 13. L/H & R/H outboard fuel drain valves checked for water. | | |
| 14. All items cleared. CREW CHIEF: | | |
| **FUSELAGE** | | |
| 1. External skin for condition. | | |
| 2. Ejector for condition. | | |
| 3. Dive flap (speed brakes) for condition & hydro leaks. L/R PISTONS BEGINNING TO LEAK | | |
| 4. Engine mounts & tail pipe for security. | | |
| 5. All cover plates secured on top of fuselage. | | |
| 6. Tail pipe & turbine for cracks or evidence of foreign material passing through turbine. | | |
| 7. All items cleared. CREW CHIEF: | | |
| **EMPENNAGE:** | | |
| 1. Stabilizer for condition. | | |
| 2. Elevator & tab for condition & security. | | |
| 3. Elevator tab for servo action. | | |

| | MECH | INSP. |
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| EMPENNAGE: (Continued) | | |
| 4. Vertical stabilizer for condition. | [illegible] | |
| 5. Vent line open. | [illegible] | |
| 6. Rudder for security & condition. | [illegible] | |
| 7. Fillets for security & condition. | [illegible] | |
| 8. All items cleared. CREW CHIEF: | [illegible] | |
| TAIL GEAR: | | |
| 1. Doors for security. | [illegible] | |
| 2. Tires for condition. | [illegible] | |
| 3. Steering cables & brackets for condition & security. | [illegible] | |
| 4. Strut for condition & cleanliness, proper pressure is 335 psi extended or 3.75 inches compressed. | [illegible] | |
| 5. Micro switch for security & condition. | [illegible] | |
| 6. All items cleared. CREW CHIEF: | [illegible] | |
| MAIN GEAR & WELL: | | |
| 1. Door for security & condition. | AR. | |
| 2. Control cables for condition, turnbarrels safetied. | AR. | |
| 3. Uplock release cable & spring secure. | AR. | |
| 4. Retract mechanism & cyl. for condition. | AR. | |
| 5. Strut for condition, proper pressure or height & cleanliness. Pressure 180 psi extended or 4.5 inches compressed. | AR. | |
| 6. Brakes for clearance & freedom of leaks. | AR. | |
| 7. Tires for condition & pressure, 240 lbs. | AR. | |
| 8. All items cleared. CREW CHIEF: | [illegible] | |
| ENGINE COMPARTMENT: | | |
| 1. Throttle for security & safety. | AR. | |
| 2. Main & aux. fuel tank transfer valves open & safetied. | AR. | |
| 3. Manual fuel shut off open & safetied. | AR. | |
| 4. Main fuel strainer drained or checked for water. | AR. | |

| ENGINE COMPARTMENT: (Continued) | MECH | INSP |
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| 5. Check accumulator pressure, 800 psi. | AR. | |
| 6. Hydro Oil tank full. | AR | |
| 7. Electrical plugs secure & safetied. | [signature] | |
| 8. Fuel & oil lines secure & free of leaks. | AR. | |
| 9. Dive flap shut off valve safetied open. | AR. | |
| 10. Engine side plates installed. | AR. | |
| 11. OK to install aft lower engine cover & drain lines. | AR. | |
| 12. All items cleared. CREW CHIEF: | [signature] | |
| SEXTANT: | | |
| 1. Lighting, DAY, NIGHT and OFF. | | |
| 2. AZIMUTH control movement, 360° both ways. | RXR | |
| 3. HEADING control movement, four rotations. | | |
| 4. ELEVATION control movement, high and low, visibility of objects. | | |
| 5. Averager time. | Sextant man on | |
| 6. Bubble diameter. | | |
| 7. Average error. | | |
| 8. Standard control settings. | | |
| 9. Light cone stowed. Cleanliness of optics. | | |
| 10. Leave light switch in off position. Turn off rectifier and remove plug from ship. | Sextant | |
| 11. All items cleared. CREW CHIEF: | [signature] | |
| FINAL SIGN OFF: | | |
| 1. Install lower engine cover fwd. section. | [signature] | |
| 2. Remove pitot airspeed cover. | [signature] | |
| 3. Remove main & tail gear down lock pins. | [signature] | |
| 4. Install scissors pin in tail gear. | [signature] | |

| FINAL SIGN OFF: (Continued) | MECH. | INSP. |
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| 5. Fuel load 1335 Fuel added 1032 Oil added 0<br>Oil level 33 Oxygen 1800 | | |
| 6. Ship released for flight DCM Date 12 Nov 56<br>Time 0700 | | |
| AIRCRAFT GENERAL: | | |
| 1. Elect and radio pre flight. | DCM | |
| 2. Install and check special equipment. | DCM | |
| 3. Check destr. circuit. | NR | |
| 4. Install and connect destr. | NR | |
| 5. Install upper hatch. | DCM | |
| 6. Pilot enter cockpit. | DCM | |
| 7. Pilot check cockpit. | DCM | |
| 8. Start MA-2 on signal from pilot. | DCM | |
| 9. Start engine. | DCM | |
| 10. Disconnect MA-2 | DCM | |
| 11. Close canopy. | DCM | |
| 12. Pull gear pins. | DCM | |
| 13. Pull chocks. | DCM | |
| 14. Crew Chief signal all OK on outside for take-off. | DCM | |
| 15. Pick up Pogo's after take-off. | DCM | |
| 16. All items cleared. CREW CHIEF: | DCM | |
| AFTER LANDING: | | |
| 1. Install Pogo's. | [illegible] | |
| 2. Tow aircraft to hangar. | DCM | |
| 3. Check with pilot to assure all discrepancies have been entered on 781-2. | DCM | |
| 4. Correct discrepancies. | DCM | |
| 5. All items cleared. CREW CHIEF: | DCM | |

## ENGINE RUN DATA

DATE 11 Nov 56 TEST _____ ARTICLE _____ OPERATION _____

START 13:12 START _____ START _____ START _____

STOP 13:25 STOP _____ STOP _____ STOP _____

| | | | | | | |
|---|---|---|---|---|---|---|
| TIME | | | | | | |
| RPM Idle 50 Max. 91-95 | 50 | | | | | |
| JET TEMP. Idle 200-300 Max. 500-580 | 310 | | | | | |
| FUEL PRESS. Idle 15-20 Max. 8-12 | 17 | | | | | |
| START TOTALIZER | 338 | | | | | |
| END TOTALIZER | 302 | | | | | |
| ELAPSED TIME | 13 min | | | | | |
| LOADMETER .05-15 | .05 | | | | | |
| HYDRO. PRESS. 2800-3100 | 3000 | | | | | |
| OIL PRESS. 40-50 | 42 | | | | | |
| OIL TEMP. Idle 0-70 Max. 0-80 | | | | | | |
| ENGINE COMP. TEMP. | | | | | | |
| AFT FUEL. TEMP. | | | | | | |
| PRESS. RATION 80% 1.2-1.6 Max. 2.2-2.5 | 1.32 | | | | | |
| WING FLAPS | OK | | | | | |
| DIVE BRAKES | OK | | | | | |
| GUST | OK | | | | | |

POSTFLIGHT INSPECTION

MISSION NUMBER 1334 AIRCRAFT NUMBER 192 DATE 12 Nov 56

MECH.

| | |
|---|---|
| **PREPARATION:** | |
| 1. Fire extinguisher provided. | |
| 2. Landing gear downlock pins installed. | |
| 3. Wheels chocked. | |
| 4. Auxiliary static ground installed. | |
| 5. Dive flaps closed shutoff valve "OFF". | |
| 6. DD Form 781 for discrepancies. | |
| 7. Switches "OFF". | |
| 8. Necessary fairing, panels and access doors removed or opened; closed or reinstalled upon completion of the inspection. | |
| 9. Dust excluder plugs and wing, empennage, canopy and pitot covers installed upon completion of the inspection. | |
| **AIRFRAME (SYSTEM NO. 3)** | |
| 1. Aircraft for cleanliness. | |
| 2. Wings, fuselage, empennage and control surfaces for damage; drain holes for obstruction. | |
| 3. Static ground wire for security and positive contact with ground. | |
| 4. Fairings, pannels, and doors for damage and insecurity. | |
| 5. Battery area for evidence of leakage or overflow of electrolyte. | |
| 6. Dive brakes track for cleanliness; flaps, tracks, and linkage for damage and insecurity; actuators, lines hoses, and connections for insecurity and evidence of leakage; lines and hoses for chatting and damage. PISTONS S/R LEAKING | |
| 7. Windshield and canopy for cleanliness, distortion, nicks, crazing, cracks, and scratches. | |
| 8. All required Postflight entries made in applicable forms. | |
| 9. Shoulder harnesses and safety belts for cleanliness. | |
| **LANDING GEAR (SYSTEM NO. 4)** | |
| 1. Landing gear and wheels for damage and free of mud, grass and | |

| | MECH. |
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| 2. Shock struts for evidence of leakage; polished surfaces of shock struts and hydraulic pistons cleaned with cloth moistened in hydraulic fluid. | |
| 3. Microswitches for cleanliness, damage, and insecurity. | |
| 4. Doors and actuating mechanism for damage, insecurity and evidence of improper adjustment. | |
| 5. Wheels for evidence of overheating in area adjacent to brakes. | |
| 6. Tires for uneven wear, cuts or blisters; free of grease or oil; slippage marks for misalignment. | |
| 7. Accessible brake lines, hoses, connections and components for leakage with parking brake "SET". | N.A. |
| 8. Accessible components, lines, hoses and connections for insecurity and evidence of leakage; lines and hoses for chaffing and damage. | |
| 9. Brake system reservoir for required fluid level; filler plug for security. | |
| **HYDRAULIC PNEUMATIC (SYSTEM NO. 5)** | |
| 1. Accessible components, lines, hoses, and connections for insecurity and evidence of leakage; lines and hoses for chaffing and damage. | |
| **UTILITY (SYSTEM NO. 6)** | |
| 1. Oxygen system and components: | |
| a. Recharge to 1850 psi. | |
| b. Regulator for steady flow by turning the pressure control knob about 90 degrees clockwise. | N A |
| c. Regulator system for leakage by ensuring that there is no audible escape of oxygen with diluter in "100% OXYGEN". | P/E |
| d. Regulator diaphragm and mask-to-regulator tubing for leakage when a slight pressure is applied at the open end of the mask-to-regulator tube by blowing gently with diluter lever set at "100% OXYGEN"; set regulator diluter at "NORMAL OXYGEN" upon completion of tests. | P/E |
| e. Hose from regulators for tears, holes, kinks and insecurity. | P/E |
| f. Knurled coller and hose on regulator outlet elbows properly tightened (point to suit user's convenience). | P/E |
| g. Flow indicators for operation. (With regulator set at "100% OXYGEN", blinker should move freely with each normal breath from mask-to-regulator tubing). | NA |

MECH

| | |
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| **POWER PLANT (SYSTEM NO. 7)** | |
| 1. Exhaust cone for soot swirls and heat streaks indicating faulty fuel nozzles. (If found, inspect inner liners, nozzles and domes). | MECH |
| 2. Turbine wheel for broken buckets. | MECH |
| 3. Buckets for nicks and dents beyond specified tolerance. | MECH |
| 4. Nozzle diaphragm blades for damage. | MECH |
| 5. Engine for evidence of leakage; loose or missing nuts, bolts, studs, or clamps; proper safetying where required. | MECH |
| 6. Diaphragm and air seal assemblies for cracks and insecurity. | MECH |
| **FUEL (SYSTEM NO. 8)** | |
| 1. Exterior of aircraft for evidence of leakage. | MECH |
| 2. Tanks serviced; tank filler necks and cap seals for damage or excessive wear; caps for proper seating. | MECH |
| **OIL (SYSTEM NO. 9)** | |
| 1. Engine reservoir for required servicing; filler cap for security. | MECH |
| 2. Exterior of fuselage for evidence of leakage. | MECH |
| 3. System components, lines, and hoses for damage; lines and hoses for chafing. | MECH |
| **AIR INDUCTION AND EXHAUST (SYSTEM NO. 11)** | |
| 1. Air intake ducts for damage and foreign material. | MECH |
| 2. Tailpipe for cracks and distortion beyond permissible limits; tailpipe clamp and blankets for damage and insecurity. | MECH |
| **ELECTRICAL (SYSTEM NO. 14)** | |
| 1. Spare lamps and fuses available in holders. | MECH |
| **INSTRUMENTS (SYSTEM NO. 15)** | |
| 1. Pitot head and static plates for damage and insecurity. | MECH |
| 2. Instruments, panels and brackets for damage and insecurity. | MECH |
| 3. Instrument cover glasses for cleanliness, cracks, and looseness; range, slippage and limit markings intact. | MECH |
| 4. Standby compasses for discoloration of fluid and evidence of bubbles. | MECH |

| | MECH |
|---|---|
| 5. Thermocouple leads for damage and insecurity. | |
| 6. Autopilot: | |
| a. Power on. | |
| b. Inverter on. | |
| c. After 3 minutes turn autopilot on. (Stick should not move fore or aft.) | |
| d. Check roll trim knob for operation. Wheel should move approximately the same distance each direction. | |
| e. Check yaw trim knob for operation. | |
| f. Check pitch trim knob for operation. | |
| g. Check turn knob for operation. | |
| h. Overpower autopilot in all three axes. (Stick and rudder pedals should return smoothly to initial position.) | |
| i. Center yaw and roll trim knobs. | |
| j. Inverter off. | |
| k. Power off. | |
| R & R (SYSTEM NO. 16) | |
| 1. Visually inspect the following items; | |
| a. Antenna lead-in for damaged insulators, proper spacing from surrounding objects, and insecurity of connections. | |
| b. Plugs for proper insertion in jacks and receptacles. | |
| c. Junction boxes and covers for damage. | |
| d. Headset and microphone cordage and plugs for damage and proper stowage. | |

REMARKS:

25X1A

SIGNATURE [redacted]